
LABORATORY
OF THE
INLAND REVENUE DEPARTMENT

OTTAWA, CANADA

BULLETIN No. 397

SUGAR

NOTES AND COMMENTS.

Under this heading, as occasion arises, the Bulletins issued by this Department will contain, as an appendix, such comment as may seem necessary or advisable upon matters relating to the work of the Department in connection with the administration of the Adulteration Act, the Fertilizers Act, the Feeding Stuffs Act or the Proprietary Medicines Act.

It frequently happens that correspondents ask information regarding the above Acts, of such a nature that the matter in question possesses general interest, and comment upon it would prove acceptable and useful to others than the immediate questioner. In such cases the reply may find a place in these columns. For convenience of reference these notes will be numbered in series.

A. MCGILL,
Chief Analyst.

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INLAND REVENUE DEPARTMENT
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BULLETIN No. 397

SUGAR

OTTAWA, April 26, 1918.

J. U. VINCENT, Esq., K.C., B.A., L.Ph.,
Deputy Minister of Inland Revenue,

SIR,—I beg to hand you a report upon 179 samples of Sugar purchased by our inspectors during October, November and December of last year. This inspection was made upon your suggestion (L 164989 of F 111100) with special reference to the illegal use of dyes in refined sugar.

An Order in Council of August, 1914, (published as Circular G 1135) defines Sugar as follows:—

SUGAR.

1. Sugar is the product chemically known as Sucrose (Saccharose) and is at the present time found in commerce as obtained from Sugar Cane, Sugar Beets, Sorghum, Maple and Palm.

2. Sugar whether sold as granulated, loaf, cut, milled or powdered sugar shall contain at least 99.5 (ninety-nine and five-tenths) per cent of sucrose, and shall be free from any artificial colouring matter.

3. Icing sugar is a powdered sugar specially prepared for baker's use, and may contain starch, not to exceed five (5) per cent by weight.

The employment of a dye in refined sugar is forbidden only when such dye is added for the purpose of giving the sugar an appearance of whiteness not due to the actual refining of the article, that is, the separation of those tinctorial matters which are characteristic of raw sugar. Such use of a dye is held to violate the requirements of section 3 (h) of the Act, which establishes as adulteration the colouring, coating, polishing or powdering of any food stuff, so as to conceal damage, or to make the article appear better, or of greater value than it really is. The colouring of crystals of sugar, as in the case of rock-candy, cannot, I think, be held to be forbidden by G 1135. In this case, the purchaser is made fully aware that a dye has been used, and he is not deceived.

Sugar is very extensively sold in a partially refined condition, and is then known as *soft sugar*. Its water content approximates 4 to 5 per cent although occasionally higher percentages are found. The colour varies from shades of brown to nearly white, and manufacturers seek to standardize, as far as possible, the particular tint under which they place their product upon the market. In some instances a dye is used, as affording an easy means of securing the standard shade desired. There can be no doubt that the public regards the particular shade of colour in soft sugar as an indication of the degree of purity of the article; and it may be held that the use of a dye constitutes adulteration, under Section 3 (h) of the Act.

Under an Order in Council of January 9, 1915, (published as Circular G 1167) it is permitted to employ certain dyes in a limited number of specified foods without declaration of the fact. Soft Sugar is not included in this list, and if a dye be used, the fact of such use must be declared upon the label, or otherwise. Of course this procedure assumes that the purchaser is not defrauded by such action, since, in that case, there would be violation of Section 3 (h) of the Act, which necessarily takes precedence of all regulations made under authority of the Act.

Forty-two (42) samples of the present collection are sold as Soft Sugars; and the actual sugar (sucrose) content in these varies from 83.22 (No. 70766) to 95.8 (No. 79320).

The cane sugar content of 42 samples of Soft Sugar is as follows:—

Above 95 per cent sucrose.	1 sample
“ 93 “ “	2 samples
“ 91 “ “	14 “
“ 89 “ “	13 “
“ 87 “ “	8 “
“ 85 “ “	2 “
Below 85 “ “	2 “

The water content of these samples is as below:—

6 per cent moisture.	1 sample
5 “ “	1 “
4 “ “	4 samples
3 “ “	16 “
2 “ “	15 “
1 “ “	5 “

While refined sugar is an article of very well marked character, soft sugars vary greatly as to the degree of purification which the raw product has undergone in their manufacture. The colour is a fairly good indication of this and together with apparent moisture or dampness, is the main evidence available to the buyer. More or less reducing sugar is always present and in the samples now reported, varies from about 1 per cent to over 8 per cent. A portion of this reducing sugar is usually uncrystallizable, is indeed molasses; and it is to this more or less caramelized component of the soft sugar that its peculiar flavour as well as its colour is due. Any attempt to standardize colour and thus imply a constant degree of refining, should be carried out only by actual purification to a constant degree, by recrystallization, and other treatment. The use of a dye with soft sugar is very questionably to be justified; and, when the presence of the dye is not declared to the purchaser, must be regarded as adulteration under Section 3 (h) of the Act.

These soft sugars are ordinarily sold as Brown, Yellow, or White and these descriptive terms should correspond to varying degrees of purification of the raw material. A glance at the accompanying results of analysis will show that no very definite relation exists between the special name under which the article is sold, and its actual sucrose content. Of 42 samples of soft sugar herein reported, 7 are sold without any specially descriptive name; 15 are sold as *brown sugar*, 15 as *yellow*

sugar, and 5 as *white sugar*. The average content of cane sugar, reducing sugar and moisture for each of these sub groups is shown in the following table:—

Average.	Soft Sugars.		
	White.	Yellow.	Brown.
Sucrose.....	10.60	89.44	89.50
Reducing Sugar content.	4.53	4.75	5.60
Moisture.....	3.06	3.24	2.89
Number of samples analysed.....	5	15	15

Seven samples are sold as *Icing Sugar*. Departmental standard permit starch, not in excess of 5 per cent by weight, to be present in this variety of refined sugar. One sample (No. 78207) shows 7.80 per cent starch. All the remainder meet legal requirements.

I beg to recommend publication of this report as Bulletin No. 397.

I have the honour to be, Sir,
Your obedient servant,

A. MCGILL,
Chief Analyst.

BULLETIN No. 397—

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.

DISTRICT OF NEW BRUNSWICK—

1917.							
Nov. 30	Sugar	78201	Atlantic Sugar Refineries, Ltd., St. John, N.B.	2 lbs.	27	Vendors	
" 30	"	78202	" " " "	2 "	27	"	
" 30	"	78203	" " " "	2 "	27	"	
" 27	"	78204	R. Jones, St. John, N.B. . . .	2 "	22	Redpath, Montreal	Baird & Peters, St. John, N.B.
" 27	"	78205	" " " "	2 "	22	" " " "	" " "
" 30	"	78206	McPherson Bros., St. John, N.B.	2 "	28	The Canada S. Refining Co., Ltd., Montreal.	
Dec. 6	"	78207	Geo. T. Whelpley, Fredericton, N.B.	2 "	28		H. W. Cole, Ltd., St. John, N.B.
" 11	"	78208	Sussex Mercantile Co., Ltd., Sussex, N.B.	2 "	20	Atlantic S. Ref. Co., Ltd., St. John, N.B.	
" 12	"	78209	Geo. A. Robertson, Moncton, N.B.	2 "	21	Can. S. Ref., Montreal.	
" 13	"	78210	D. A. McBeath, Moncton, N.B.	2 "	22	Dom. Sugar Co., Ltd., Chatham, Ont.	

STRICT OF QUEBEC CITY—

Oct. 31	Sucre	70764	J. A. Vezina, 126 Arago, Quebec.	2 lbs.	22	Lantic Sugar	Kironac Cie, Ltd..
" 31	"	70765	" " " "	2 "	20	" " " "	Whitehead & Turner.
" 31	"	70766	" " " "	2 "	20	" " " "	Drouin Frère
" 31	"	70767	F. Maheux, 126 Arago, Quebec.	2 "	24	Dom. Sugar Co. . . .	Quebec Preserving Co.
" 31	"	70768	R. Nadeau, 195 Arago, Quebec.	2 "	24	Lantic Sugar	J. B. Letellier
" 31	"	70769	" " " "	2 "	22	Redpath	J. B. Renaud Cie..
" 31	"	70770	M. Cameron, 204 Rue Arago, Quebec.	2 "	26	Unknown	Quebec Preserving Co
Nov. 2	"	70771	" " " "	2 "	22	" " " "	" " "
" 2	"	70772	O. P. Brousseau, 218 Rue Arago, Quebec.	2 "	24	Dom. Sugar Co., Ltd.	P. J. Bussière
" 2	"	70773	" " " "	2 "	22	Acadia Sugar Co., Ltd., Canada.	"

SUGAR.

Inspector's Report (Is not an expression of opinion)	Results of Analysis.								No. of Sample.	Remarks and Opinion of the Chief Analyst.	
	Polarization of normal solution at 20° C.			Cane Sugar.	Reducing Sugar.	Moisture.	Ash.	Dyes.			Starch.
	Direct.	Invert.	Difference.								

JNO. C. FERGUSON, INSPECTOR.

Extra Fine granulated.	+99.6							None.	78201	Meets legal requirements.
Yellow, Brilliant, Soft.	+89.4	-29.6	119.0	89.71	3.24	4.24	1.24		78202	Soft sugar.
Specially prepared Icing.	+96.1	-31.6	127.7	96.26		1.10			78203	Icing sugar. Genuine.
Granulated. . .	+99.5							None.	78204	Meets legal requirements.
Yellow	+90.9	-30.0	120.9	91.13	3.28	3.46	0.69		78205	Soft Sugar.
Redpath. Icing..	+97.4	-31.8	129.2	97.40		0.18			78206	Icing sugar. Genuine.
Icing	+92.6	-30.4	123.0	92.72		0.82		7.89	78207	Icing sugar. Excess starch.
Granulated..	+99.6							None.	78208	Meets legal requirements.
	+99.5							"	78209	" "
	+99.6							"	78210	" "

F. X. W. E. BELAND, INSPECTOR.

Granule	+99.5								70764	Meets legal requirements.
Blanc	+92.0	-30.3	122.3	92.20	2.73	3.20	0.74	None.	70765	Soft sugar.
Brun	+82.4	-28.0	110.4	83.22	6.92	4.79	2.07		70766	"
Granule	+99.6							None.	70767	Meets legal requirements.
"	+99.5							"	70768	" "
Blanc	+90.3	-30.0	120.3	90.68	4.10	3.86	0.24		70769	Soft sugar.
Granule	+99.6							None.	70770	Meets legal requirements.
Blanc	+90.6	-30.2	120.8	91.06	5.28	2.94	0.36		70771	Soft sugar.
"	+99.5							None.	70772	Meets legal requirements.
"	+83.1	-27.4	110.5	83.30	8.16	3.76	1.62		70773	Soft sugar.

BULLETIN No. 397—

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.

DISTRICT OF QUEBEC PROVINCE—

1917.							
Oct. 27	Sucre....	5683	Aristide Beauchamp, St. Jerome.	2 lbs.	20		Hudon Hebert ..
" 27	"	5685	Charles Taillon, St. Jerome.	2 "	19	Lantic Sugar.....	
" 27	"	5690	Charlemagne Taillon, St. Jerome.	2 "	20	Dom. Sugar.....	
Nov. 5	"	5698	H. A. Valiquette, St. Janvier.	2 "	20		Chaput.....
" 5	"	5699	M. Saurial, St. Janvier....	2 "	20		Lacaille & Gendron
" 6	"	5700	J. B. Lefevre, Ste. Therese...	2 "	22	St. Laurent	
" 6	"	5511	J. E. Turbide, Ste. Therese de Blainville.	9 "	20		Hudon Hebert....
" 6	"	5512	Jos. Gauthier, Ste. Therese de Blainville.	2 "	20		Chaput Fils & Cie.
" 19	"	5513	David Boivin, St. Jerome....	2 "	22		Pierre Simard, St. Jerome.
" 20	"	5514	G. Cote, Ste. Agathe des Monts.	2 "	22		L. Chaput Fils, & Cie.
Oct. 22	"	7763	Joseph Rioux, Trois Pistoles	2 "	10		
" 22	Granulé ..	7764	" " " "	2 "	10		
" 23	Sucre	7766	Ernest Devost, Bic.....	3 paq.	20		
" 23	"	7777	J. H. Parent, Bic... ..	3 "	20		
" 24	Granule ..	7771	J. Desrosiers, Rimouski	2 lbs.	24		Renaud, Quebec...
" 24	Cassonade	7773	" " " "	2 "	30		Pierre Doyon, Bic
" 24	"	7772	" " " "	2 "	20		"
Nov. 7	Sugar	7768	Arnt Voyer, Mont Joli.....	2 "	22	Redpath.....	
" 7	Cassonade	7780	" " " "	2 "	20	Acadia....	

DISTRICT OF THREE RIVERS—

Oct. 22	Sugar . . .	7565	Felix Champagne, St. Felix Valois	2 lbs.	20		G. H. Read, St. Felix de Valois.
" 22	"	7567	L. Henault & cie, St. Felix Valois.	2 "	20	Dom. Sugar Co Ltd., Montreal.	
" 24	"	7574	Magnan Bros., Joliette.....	2 "	20		Chevalier Sons, Joliette.
" 25	"	7578	A. A. Boucher, "	2 "	20		L. Z. Magnan, Joliette.

SUGAR.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst.		
	Polarization of normal solution at 20° C.			Cane Sugar.	Reducing Sugar.	Moisture.	Ash.			Dyes.	Starch.
	Direct.	Invert.	Difference.								

N. CADIEUX AND J. H. RIOUX, INSPECTORS.

Granule				99.7	None.	None.	None.	5683	Meets legal requirements.
"				99.6	"	"	"	5685	" "
"				99.4	"	"	"	5690	" "
"				100.0	"	"	"	5696	" "
"				99.6	"	"	"	5699	" "
"				99.7	"	"	"	5700	" "
Redpath				99.6	"	"	"	5511	" "
"				99.7	"	"	"	5512	" "
"				99.4	"	"	"	5513	" "
"				99.9	"	"	"	5514	" "
"				91.15	10	3.01	0.75	7763	Soft sugar.
"				100.0	None	None.	"	7764	Meets legal requirements.
"				98.80	22	1.20	0.08	7766	" but too damp; is not properly packed by inspector.
"				99.7	None.	None.	"	7777	Meets legal requirements.
"				99.6	"	"	"	7771	" "
"				92.14	24	2.55	1.14	7773	Soft sugar.
"				85.28	43	4.44	1.94	7772	"
"				99.6	None.	None.	"	7768	Meets legal requirements.
"				90.65	96	2.87	0.60	7780	Soft sugar.

DR. V. P. LAVALLEE, INSPECTOR.

"				99.6	None.	None.	None.	7565	Meets legal requirements.
"				99.7	"	"	"	7567	" "
"				99.7	"	"	"	7574	" "
"				99.6	"	"	"	7578	" "

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Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.

DISTRICT OF THREE RIVERS—

1917.							
Oct. 29	Sugar....	7591	Alexis Martineau, St. Cleophas.	2 lbs.	20		Jos. Dufresne, Joliette.
" 29	"	7593	Leonce Mirville, St. Cleophas.	2 "	20	Lantic Co.....	"
" 31	Sucre....	7595	Ludger Chevreth, St. Gabriel	2 "	20		J. J. Soumis Joliette.
" 31	Sugar	7596	Joachim Robert, "	2 "	20	Dom. Sugar Co. Ltd., Montreal	
Nov. 5	Sucre....	8004	O. Paquette, Berthierville..	2 "	20		Hudon Hebert, Montreal.
" 8	"	8007	J. A. Bellrose, St. Felix de Valois.	2 "	20		Chevalier & Pouliot Joliette.

DISTRICT OF MONTREAL—

Oct. 23	Sugar ...	78986	D. Payette, 505 St. Valier St., Montreal.	2 lbs.	20		
" 26	"	78987	A. Laurandeau Ltd., 215 St. Paul E., Montreal.	2 "	20		
" 26	"	78988	"	2 "	25		
" 26	"	78989	Oriental Grocery, 311 Notre Dame E., Montreal.	2 "	22		
" 26	"	78990	Thos. Dulude, 486 Lagauchetiere E., Montreal.	2 "	19		
" 26	"	78991	"	2 "	19		
" 26	"	78992	J. A. Mercier, 504 Lagauchetiere E., Montreal.	2 "	24		
" 26	"	78993	H. Litner, 112 St. Maurice Montreal.	2 "	20		
" 26	"	78994	"	2 "	24		
" 26	"	78995	Grand General Store, 435 Notre Dame St. W., Montreal.	2 "	20		

DISTRICT OF VALLEYFIELD—

Oct. 31	Sugar ...	79311	Joseph Capiello, Huntingdon.	2 lbs.	20		
" 31	"	79312	H. A. Trickey, Huntingdon.	2 "	20		
" 31	"	79313	"	2 "	20		
Nov. 8	"	79314	Peter Delorme, Vankleek Hill.	2 "	20		Forbes Bros., Montreal
" 8	"	79315	"	2 "	19		"

SUGAR.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.								No. of Sample.	Remarks and Opinion of the Chief Analyst.	
	Polarization of normal solution at 20 C.			Cane Sugar.	Reducing Sugar.	Moisture.	Ash.	Dyes.			Starch.
	Direct.	Invert.	Difference.								

Concluded.

				99.7	None	None	None	7591	Meets legal requirements.
Gran.				99.8	"	"	"	7593	" "
"				99.6	"	"	"	7595	" "
				99.7	"	"	"	7596	" "
				99.6	"	"	"	8004	" "
				99.4	"	"	"	8007	" "

J. J. COSTIGAN, INSPECTOR.

Granulated.				99.8	None	None	None	78986	Meets legal requirements.
"				99.8	"	"	"	78987	" "
Crystal Cut Loaf.				99.9	"	"	"	78988	" "
Granulated.				99.7	"	"	"	78989	" "
Yellow				92.03 50	3.27	1.15	"	78990	Soft Sugar.
Granulated.				99.7	None	None	None	78991	Meets legal requirements.
"				99.6	"	"	"	78992	" "
"				99.6	"	"	"	78993	" "
Cut Loaf.				99.7	"	"	"	78994	" "
Granulated.				99.9	"	"	"	78995	" "

J. J. COSTIGAN, ACTING INSPECTOR.

Granulated.				99.7	None	None	None	79311	Meets legal requirements.
Brown.				90.45 75	2.82	1.04	"	79312	Soft sugar.
Yellow.				90.24 28	3.75	1.72	"	79313	"
Granulated.				99.7	None	None	"	79314	Meets legal requirements.
Brown.				93.64 46	1.74	0.22	"	79315	Soft sugar.

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				Quantity.	Cent.	Manufacturer.	Furnisher.

DISTRICT OF VALLEYFIELD—

1917.							
Nov. 8	Sugar	79316	Meredith & Church, Vankleek Hill.	2 lbs.	20		
" 8	"	79317	G. Chalmers, Vankleek Hill.	2 "	24		
" 13	"	79318	J. A. McLaughlin, Cowansville.	2 "	20		
" 13	"	79319	E. Goyette, Cowansville.	2 "	25		
" 13	"	79320	J. E. Boright, Sweetsburgh.	2 "	19		

DISTRICT OF OTTAWA—

Oct. 23	Sugar	80442	Anderson & Langstaff, Kemptville.	2½ lbs.	25	Dom. Sugar Co., Ltd., Wallaceburg, Ont.	
" 24	"	80444	J. C. Ray, Elgin St., Ottawa.	2 "	30	The Canada Sugar Ref. Co., Ltd., Montreal.	
Nov. 3	"	80469	J. B. Kemp, Pembroke.	3 "	30	Dom. Sugar Co., Ltd., Wallaceburg, Ont.	
" 3	"	80471	Leacy & Shields, Pembroke.	2 "	20	Dom. Sugar Co., Ltd., St. Catharines.	
" 6	"	80482	P. J. Glavey, 33 York St., Ottawa.	2 "	20	Atlantic Sugar Ref. Co., Ltd., Montreal.	
" 8	" ..	80484	H. Richardson, 1097 Wellington St., Ottawa.	2 "	20	The Canada Sugar Ref. Co., Ltd., Montreal.	
" 9	"	80487	G. Christie, Winchester.	" "	20	St. Lawrence Ref. Co., Montreal.	
" 9	"	80490	L. Flora, Winchester.	2 "	20	Dom. Sugar Co., Wallaceburg, Ont.	
" 19	"	80500	T. Bowman, 785 Somerset St., Ottawa.	2 "	20	St. Lawrence Sugar Ref. Ltd., Montreal.	
" 20	"	80512	K. Appel, 413 Bank St., Ottawa.	2 "	26	St. Lawrence Co.	

DISTRICT OF KINGSTON—

Nov. 2	Sugar ...	81901	W. Marshall, Kingston.	2 lbs.	20	Robertson Grocery Co., Kingston.	
" 2	"	81902	J. M. Gordon, Kingston.	2 "	20	W. G. Craig Co., Kingston.	
" 2	"	81903	J. A. Lennon, Kingston.	2 "	20	R. J. Carson, Kingston.	

SUGAR.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.								No. of Sample.	Remarks and Opinion of the Chief Analyst.	
	Polarization of normal solution at 20° C.			Cane Sugar.	Reducing Sugar.	Moisture.	Ash.	Dyes.			Starch.
	Direct.	Invert.	Difference.								
Concluded.											
Granulated.....				99.9	None	None	None		79316	Meets legal requirements.	
Diamond Lump...				99.7	"	"	"		79317	" "	
Granulated..				99.7	"	"	"		79318	" "	
Paris Lump.....				99.7	"	"	"		79319	" "	
Muscavada, white.				96.8	2.39	1.54	0.30	"	79320	Soft sugar.	

J. A. RICKEY, INSPECTOR.

Label. Dom. Crystal. Pure cane sugar. Standard granulated. Loaf..				99.7	None	None	None		80442	Meets legal requirements.
Extra Standard granulated.				99.7	"	"	"		80444	" "
Dom. Crystal. Pure cane sugar.				99.7	"	"	"		80469	" "
Granulated..				99.8	"	"	"		80471	" "
"				99.7	"	"	"		80482	" "
"				99.9	"	"	"		80484	" "
"				99.8	"	"	"		80487	" "
"				99.7	"	"	"		80490	" "
"				99.7	"	"	"		80500	" "
Cut Bar				99.9	"	"	"		80512	" "

JAS. HOGAN, INSPECTOR.

.....				99.6	None	None	None		81901	Meets legal requirements.
.....				99.6	"	"	"		81902	" "
.....				99.8	"	"	"		81903	" "

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Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF KINGSTON—							
1917.							
Nov.	2 Sugar	81904	J. R. B. Gage, Kingston.	2 lbs.	20		Geo. Robertson & Son, Kingston.
"	2 "	81905	E. H. Baker, Kingston.	2 "	20		A. Maclean, Kingston.
"	5 "	81906	Caverly & Bradshaw, Kingston.	2 "	20		W. G. Craig Co., Kingston.
"	5 "	81907	J. Gilbert, Kingston.	2 "	20		A. Maclean, Kingston.
"	5 "	81908	S. J. Watts, Kingston.	2 "	20		W. R. McRae, Kingston.
"	5 "	81909	A. Glover, Kingston.	2 "	20	Redpath	
"	5 "	81910	J. E. Evans & Son, Kingston.	2 "	20		Robertson Groc. Co., Kingston.
DISTRICT OF TORONTO							
Nov.	6 Sugar	80999	F. H. Bible, 239 Broadview Ave., Toronto.	2 lbs.	22	Dom. Sugar Ref. Co., Ltd., Kitchener.	
"	6 "	81000	Thos. Barrie, 349 Broadview Ave., Toronto.	2 "	20		Unknown
"	7 "	81001	L. James, 470 Queen St. West, Toronto.	2 "	20		Jas. Lumsden Co., Ltd., Toronto.
"	8 "	81002	A. Browne, 198a Carleton St., Toronto.	2 "	22		" "
"	8 "	81003	M. W. Little, 494 Bloor St. West, Toronto.	2 "	22		Thos. Kinnear & Co.
"	9 "	81004	C. S. Pitcher, 940 Queen St. East, Toronto.	2 "	22		" "
"	9 "	81005	W. Thompson & Sons, 2533 Dundas St. West, Toronto.	2 "	20		Canada Brokerage Co., Ltd., Toronto.
"	9 "	81006	J. A. Moore	2 "	22		Medland Bros., Toronto.
"	12 "	81007	C. Robinson, 150 Ave. Road, Toronto.	2 "	20	Dom. Sugar Ref. Co., Ltd., Kitchener.	
"	12 "	81008	Gibbons & Co., 829 Yonge St., Toronto.	2 "	25	Atlantic Sugar Co., St. John, N. B.	
DISTRICT OF HAMILTON—							
Oct.	23 Sugar	80940	A. H. Milner & Co., Brampton.	2 lb.	20		Unknown
"	23 "	80941	Benson Bros., Guelph.	"	25		Simpson & Co., Guelph.
"	24 "	80942	C. C. Borden, Guelph.	"	25	Dom. Sugar Co., Ltd., Wallaceburg	

SUGAR.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Polarization of normal solution at 20° C.			Cane Sugar.	Reducing Sugar.	Moisture.	Ash.	Dyes.	Starch.
	Direct.	Invert.	Differ- ence.						

Concluded.

				99.7	None	None	None	81904	Meets legal require- ments.
				99.7	"	"	"	81905	" "
				99.8	"	"	"	81906	" "
				99.7	"	"	"	81907	" "
				99.8	"	"	"	81908	" "
				99.6	"	"	"	81909	" "
				99.8	"	"	"	81910	" "

H. J. DAGER, INSPECTOR.

				99.7	None	None	None	80999	Meets legal require- ments.
				99.8	"	"	"	81000	" "
Brown.				92.24	20	1.61	0.97	81001	Soft sugar.
				99.9	None	None	"	81002	Meets legal require- ments.
Brown.				88.18	48	2.89	0.54	81003	Soft sugar.
				99.7	None	None	"	81004	Meets legal require- ments.
				99.6	"	"	"	81005	" "
				99.6	"	"	"	81006	" "
				99.7	"	"	"	81007	" "
				99.7	"	"	"	81008	" "

H. J. DAGER, ACTING INSPECTOR.

				89.46	98	2.92	0.68	None.	80940	Soft Sugar.
				99.9		None.	None.	"	80941	Meets legal require-
				99.9		"	"	"	80942	ments.
										"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.

DISTRICT OF HAMILTON—

1917.							
Oct. 24	Sugar ...	80943	Schell Bros., Kitchener....	2 lbs.	20	Canada Ref. Co., Ltd., Montreal.	
" 24	"	80944	Weseloh & Goudie, Kitchener	"	20	Dom. Sugar Ref. Co., Ltd., Kitchener.	
" 25	"	80945	Richm & Co., Waterloo, Ont.	"	25	" "	
" 26	"	80946	Hancock & Co., Galt	"	22	Canada Sugar Ref. Co., Ltd., Montreal	
" 26	"	80947	A. T. Pickles, Brantford....	"	25		Geo. Foster & Son, Brantford.
" 30	"	80948	T. T. Primeau, 807 Barton St., East Hamilton.	"	22		Balfour Smye Co., Ltd., Hamilton.
" 30	"	80949	H. Merritt, 1002 Barton St., East Hamilton.	"	25	The Canada Sugar Ref. Co., Ltd., Montreal.	

DISTRICT OF WINDSOR—

Nov. 5	Sugar ...	65326	C. A. Filby, Aylmer....	1½ lb.	19	Redpath Sugar Co.	
" 6	"	65332	H. G. Charlton, Aylmer. .	"	15	Lantic Sugar Co..	
" 6	"	65337	G. O. Werrett, Simcoe.....	"	18	Unknown	
" 7	"	65338	O. R. Houselman, Simcoe..	"	17	St. Lawrence Sugar Co.	
" 7	"	65342	Cruikshank Bros., Simcoe..	"	17	Redpath Sugar Co.	
" 8	"	65350	Chas. Williams, Tillsonburg	"	18	" "	
" 13	"	65361	U. B. Howden, Watford ..	"	17	Lantic Sugar Co..	
" 13	"	65367	W. D. Cameron, Watford...	"	15	St. Lawrence Sugar Co.	
" 14	"	65371	C. R. Polley, Petrolia	"	15	Redpath Sugar Co.	
" 14	"	65373	Fred. Scarsbrook, Petrolia..	"	15	" "	

DISTRICT OF NORTHERN ONTARIO—

Nov. 8	Sugar	78678	F. C. Preston Co., Haileybury.	2 lbs.	25	St. Lawrence Sugar Refineries.	
" 12	"	78684	Grills Co., New Liskeard....	2 "	20	Redpaths	
" 12	"	78688	Frank Heasman, New Liskeard.	2 "	20	Atlantic Sugar Co., Montreal.	

SUGAR.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.								No of Sample.	Remarks and Opinion of the Chief Analyst.	
	Polarization of normal solution at 20° C.			Cane Sugar.	Reducing Sugar.	Moisture.	Ash.	Dyes.			Starch.
	Direct.	Invert.	Difference.								
Concluded.											
Redpath.....				99.8	None.	None.	None.		80943	Meets legal requirements.	
.....				99.9	"	"	"		80944	" "	
.....				99.7	"	"	"		80945	" "	
.....				99.6	"	"	"		80946	" "	
.....				99.6	"	"	"		80947	" "	
.....				99.9	"	"	"		80948	" "	
.....				99.8	"	"	"		80949	" "	

JNO. TALBOT, INSPECTOR.

Granulated.....				99.7	None.	None.	None.		65326	Meets legal requirements.
Yellow.....				93.83.95	1.78	0.42	"		65332	Soft sugar.
Granulated.....				99.9	None.	None.	"		65337	Meets legal requirements.
".....				99.9	"	"	"		65338	" "
".....				99.8	"	"	"		65342	" "
".....				99.9	"	"	"		65350	" "
".....				99.8	"	"	"		65361	" "
".....				99.8	"	"	"		65367	" "
Yellow.....				89.03.82	4.16	1.05	"		65371	Soft sugar.
Granulated.....				99.8	None.	None.	"		65373	Meets legal requirements.

THOS. E. ARMSTRONG, INSPECTOR.

Extra granulated.....				99.9	None.	None.	None.		78678	Meets legal requirements.
Yellow.....				89.07.03	3.50	0.44	"		78684	Soft sugar.
Granulated.....				99.4	0.27	None.	"		78688	Meets legal requirements.

BULLETIN No. 397—

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.

DISTRICT OF NORTHERN ONTARIO—

1917.							
Nov. 12	Sugar	79002	S. Greenwood & Sons, New Liskeard.	2 lbs.	20	Atlantic Sugar Refineries.	.....
" 17	"	79008	A. J. Carson, Haileybury...	2 "	20	Dom. Sugar Co...	.....
" 19	"	79403	A. Zion, Cobalt	2 "	20	St. Lawrence Sugar Refineries, Montreal.	.....
" 19	"	79410	Paré & Labrosse, Haileybury	2 "	22	" "	.....
" 19	"	79411	Felix Cattarello, Cobalt....	2 "	22	Dom. Sugar Co., Wallaceburg.	.....

DISTRICT OF MANITOBA—

Nov. 5	Sugar ...	79619	Geo. H. Stinson, Hartney, Man.	2 lbs.	20	Lantic Sugar Co., Montreal.	Richard & Brown, Winnipeg.
" 5	"	79620	Joseph Mountain, Hartney, Man.	2 "	25	" "	Unknown.....
" 7	"	79621	P. H. Boulet, Dunsmuir.....	2 "	20	Can. Sugar Ref. Co., Brandon.	Jobin Marrin, Winnipeg.
" 8	"	79622	R. Rollins, Baldur.....	2 "	25	Redpath, Montreal	.....
" 9	" ..	79623	G. Towmouth, Belmont....	2 "	25	Wallaceburg Sugar Co., Wallaceburg.	Unknown.....
" 14	"	79624	J. Cusson, Somerset.....	2 "	25	Redpath, Montreal	.....
" 15	"	79625	W. F. Hartwell, Swan Lake	2 "	30	" "	Codville Co., Winnipeg.
Dec. 6	"	79626	L. Knowlson, 430 Harbinson St., Elmwood, Winnipeg.	2 "	25	.....	A. McDonald Co., Winnipeg.
" 6	"	79627	L. Buskin, 415 Union St., Winnipeg.	2 "	30	Redpath, Montreal	.....
" 6	"	79628	L. Simovick, 412 Union St., Winnipeg.	2 "	25	.....	Geo. McLaren Co., Winnipeg.

DISTRICT OF SASKATCHEWAN—

Dec. 5	Sugar ...	76960	Beauregard & Co., Assiniboia	2 lbs.	25	.....	McDonald Crawford Co., Moosejaw.
" 5	"	76962	Andersor & Thompson, Assiniboia.	2 "	25	B. C. Sugar Ref. Co., Ltd., Vancouver.	Codville Co., Moosejaw.
" 6	"	76965	Surdia & Oltman, Assiniboia.	2 "	25	" "	Campbell, Wilson & Strathdee, Regina.
" 6	"	76970	Sanford Co., Assiniboia....	2 "	25	" "	A. McDonald Co., Moosejaw.
" 6	"	76973	McBride, Ltd., Assiniboia...	2 "	25	" "	Weyburn Grocery, Weyburn.

SUGAR.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.								No. of Sample.	Remarks and Opinion of the Chief Analyst.	
	Polarization of normal solution at 20° C.			Cane Sugar.	Reducing Sugar.	Moisture.	Ash.	Dyes.			Starch.
	Direct.	Invert.	Differ- ence.								

Concluded.

Brilliant yellow, 2 33 pure cane. Extra granulated..				90.74.14	3.96	1.10	None.		78612	Soft sugar.
Yellow No. 3. Diamond.				91	3.0	9.67			79403	Meets legal requirements. Soft sugar.
Yellow, pure cane. Diamond brand. Extra standard. Preserving, guaranteed.				91	3.74	3.36			79410	"
				91	3.74	3.36			79411	Meets legal requirements.

J. B. COSGROVE, INSPECTOR.

Light brown.....	+86.0	-27.9	113.9	91.54	2.4	0.90	None		79619	Soft sugar.
Granulated.....	+99.8								79620	Meets legal requirements.
Brown.....	+88.0	-29.0	117.0	91.7	2.40	0.90			79621	Soft sugar.
Cube.....	+99.8								79622	Meets legal requirements.
Granulated.....	+99.8								79623	" "
Lump.....	+99.8								79624	" "
	+99.8								79625	" "
Brown.....	+90.0	-29.9	119.9	91.81	3.3	0.65			79626	Soft sugar.
Granulated.....	+99.8								79627	Meets legal requirements.
	+88.6	-23.6	112.2	88.88	5.04				79628	Soft sugar.

L. H. HALL AND J. M. DANIS, INSPECTOR

Brown.....	+90.0	-28.6	118.6	89.40	6.0	2.4	0.6	None.	76960	Soft sugar.
Granulated.....	+99.6			99.6		None.	None.	"	76962	Meets legal requirements.
"	+99.6			99.6		"	"	"	76965	" "
"	+99.8			99.8		"	"	"	76970	" "
"	+99.8			99.8		"	"	"	76973	" "

BULLETIN No. 397—

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cent.	Manufacturer.	Furnisher.

DISTRICT OF SASKATCHEWAN—

1917							
Dec. 7	Sugar....	76979	Stevenson Bros, Shaunavon.	2 lbs.	25	B. C. Sugar Ref. Co. Vanc.	.....
" 18	"	76987	Clay's Bakery & Grocery Eyebrow.	2 "	25	" "	H. G. Smith, Ltd., Regina.
" 18	"	76996	R. Black, Tuxford.....	2 "	25	" "	.....
" 19	"	76997	R. T. Lowther, Tuxford....	2 "	25	" "	Cameron & Heap Regina.
" 29	"	77093	The Paragon Store, Moose-jaw.	2 "	25	" "	.....
Nov. 13	"	78582	H. B. Hall & Sons, Lloyd-minster.	2 "	25	St. Lawrence Sugar Co., Montreal.	.....
" 15	"	78587	Tarbel Bros, No. Battleford.	2 "	25	" "	.....
" 15	"	78591	Hub Clothiers, No. Battleford.	2 "	25	.....	A. McDonald Co., No. Battleford.
" 19	"	78596	J. A. Roy, Delmas.....	2 "	20	.....	" "
" 20	"	78598	Jacob Goldstein, Radisson..	2 "	25	.....	Campbell Wilson & Miller Saskatoon.
" 27	"	81805	Thos. Richardson, Fielding.	2 "	25	.....	" "
" 28	"	81808	Borden Trading Co., Borden.	2 "	20	.....	" "

DISTRICT OF ALBERTA—

Oct. 24	Sugar....	52807	The John Irwin Co., Ltd., Calgary.	2 lbs.	30	B. C. Sugar Ref. Co. Vancouver.	.....
" 24	"	52808	" "	2 "	25	" "	.....
" 24	"	52809	Wm. Quirk, Calgary.....	2 "	25	" "	.....
" 25	"	52810	Jenkins & Co., East Calgary.	2 "	25	" "	.....
" 25	"	52811	Frizzles Grocery, East Calgary.	2 "	30	.....	Campbell Wilson & Horne, Calgary.
" 25	"	52812	" "	2 "	30	B. C. Sugar Ref. Co. Ltd., Vanc.	.....
" 26	"	52813	The Quaker Grocery, 708 4th St. W. Calgary.	2 "	25	" "	.....
" 29	"	52814	Thos. A. Gaetz, Red Deer..	2 "	25	" "	.....
" 29	"	52815	A. M. Campbell, Lacombe..	2 "	25	" "	.....
" 30	"	52816	Lawson & Co, Wetaskiwin..	2 "	25	" "	.....

SUGAR.

Inspector's Report. (Is not an expres- sion of opinion.)	Results of Analysis.								No. of Sample.	Remarks, and Opinion of the Chief Analyst.	
	Polarization of normal solution at 20° C.			Cane Sugar.	Reducing Sugar.	Moisture.	Ash.	Dyes.			Starch.
	Direct.	Invert.	Differ- ence.								

Concluded.

Granulated.....	+99.8			99.8	None	None	None		76979	Meets legal requirements.
"	+99.6			99.6	"	"	"		76987	" "
"	+99.8			99.8	"	"	"		76990	" "
"	+99.8			99.8	"	"	"		76997	" "
"	+99.8			99.8	"	"	"		77003	" "
"	+99.8				"	"	"		78582	" "
Extra Granulated.	+99.7				"	"	"		78587	" "
Brown.....	+89.8	-30.4	120.2	91.14	5.80	2.30	0.75	"	78591	Soft Sugar.
"	+91.6	-29.9	121.5	92.10	4.26	2.25	0.50	"	78596	"
Granulated.....	+99.8				None		"		78598	Meets legal requirements.
Yellow.....	+90.4	-28.6	119.0	90.22	5.94	2.20	0.50	"	81805	Soft Sugar.
"	+86.4	-28.8	115.2	86.20	5.52	3.45	1.25	"	81808	"

A. W. R. MARKLEY, INSPECTOR.

Big Free Brand. Extra Fine Sugar.	+99.6			99.6	None	None	None		52807	Meets legal requirements.
Diamonds Coffee Sugar, made sol. from Cane Sugar.										
Yellow, Rogers Brand.	+89.6	-26.8	116.4	87.74	9.0	2.1	0.35	"	52808	Soft Sugar.
Extra Granulated, Rogers Brand.	+99.8			99.8	None	None	"		52809	Meets legal requirements.
Granulated, Rogers Brand.	+99.8			99.8	"	"	"		52810	" "
Leaf.....	+99.6			99.6	"	"	"		52811	" "
Icing, Extra Fine.	+98.0			98.0	"	"	"		52812	Icing sugar. Genuine.
Granulated, Rogers Brand.	+99.8			99.8	"	"	"		52813	Meets legal requirements.
"	+99.8			99.8	"	"	"		52814	" "
Paris Lump.....	+99.8			99.8	"	"	"		52815	"
Yellow, Rogers Brand.	+92.8	-29.0	121.8	91.05	6.2	2.3	0.30	"	52816	Soft Sugar.

BULLETIN No. 397—

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.

DISTRICT OF ROCKY MOUNTAINS—

1917									
Nov.	2	Sugar ...	68519	Star Grocery, Nelson.	2 lbs..	25	B. C. Sugar Ref.,		
							Vancouver.		
"	2	" ...	68520	" "	2 "	25	" "		
"	5	" ...	68531	R. A. Smith, Moyie.	2 "	25	" "		
"	5	" ...	68536	P. Conrad, Moyie.	2 "	35	" "		
"	8	" ...	68539	R. Hirtz, Elko.	2 "	30	" "		

DISTRICT OF VANCOUVER—

Nov. 16	Sugar	76206	Fenyn's Grocery, 4th Ave. & Commercial Drive, Vanc.	2 lbs.	20	B. C. Sugar Ref. Co., Ltd., Vanc.	Manufacturers
" 16	"	76207	The Main Grocery Store, 1102 Commercial Drive, Vanc.	2 "	20	"	"
" 19	"	76208	J. Harkness, 2365 Main St., Vancouver.	2 "	20	"	"
" 19	"	76209	W. Parsons, 2425 Main St., Vancouver.	2 "	25	"	"
" 19	"	76210	Mount Pleasant Grocery, 2345 Main St., Vancouver.	2 "	25	"	"
" 20	"	76211	Galloway & Gargett, 2091 4th Ave. W., Vancouver.	2 "	25	"	"
" 20	"	76212	A. G. Page, 543 Kingsway, Vancouver.	2 "	20	"	"
" 22	"	76213	Larsen & Aune, New Westminster.	2 "	25	"	"
" 23	"	76214	J. McTaggart & Sons, 794 Granville St., Vancouver.	6 cakes	50	Mission Confectionary, Ltd., Vanc.	.....
" 23	"	76215	T. F. McDowell, 938 Granville St., Vancouver.	2 lbs.	25	B. C. Sugar Ref. Co., Ltd., Vanc.	.....

SUGAR.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.								No. of Sample.	Remarks and Opinion of the Chief Analyst.	
	Polarization of normal solution at 20° C.			Cane Sugar.	Reducing Sugar.	Moisture.	Ash.	Dyca.			Starch.
	Direct.	Invert.	Difference.								

THOS. PARKER, INSPECTOR.

Granulated.....	+99.6							None.	68519	Meets legal requirements.
Yellow	+87.7	-27.0	114.7	88.47	3.87	1.80	0.44	"	68520	Soft sugar.
Brown.....	+86.6	-26.4	113.0	87.16	6.06	2.74	0.72	"	68531	"
Icing.....	+96.5	-28.8	125.3	96.65	0.53	0.34	0.01	"	68536	Icing sugar. Genuine.
Bar.....	+99.6							"	68539	Meets legal requirements.

G. G. ARMYTAGE, INSPECTOR.

Granulated	+99.7							None.	76206	Meets legal requirements.
Brown.....	+90.4	-28.2	118.6	91.48	4.08	3.48	0.61	"	76207	Soft sugar.
"	+86.5	-27.4	113.9	87.86	5.65	3.56	1.10	"	76208	"
Granulated	+99.9							"	76209	Meets legal requirements.
Icing.....	+99.5							"	76210	Icing sugar. Genuine.
"	+92.5	-29.8	122.3	94.34	0.66	0.13	0.02	"	76211	"
Brown.....	+86.5	-26.8	113.3	87.39	5.51	3.58	0.92	"	76212	Soft sugar.
Granulated	+99.7							"	76213	Meets legal requirements.
Maple.....	+77.4	-24.8	102.2	78.83	4.42	7.94	0.69	"	76214	Genuine maple sugar.
Demarara	+90.5	-28.6	119.1	91.87	0.90	6.29	0.37	"	76215	Soft sugar.